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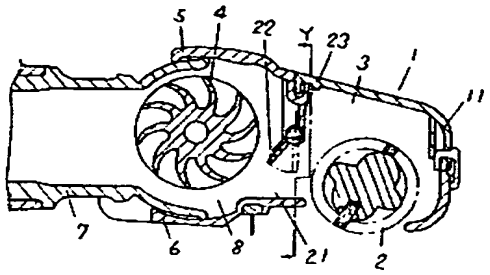
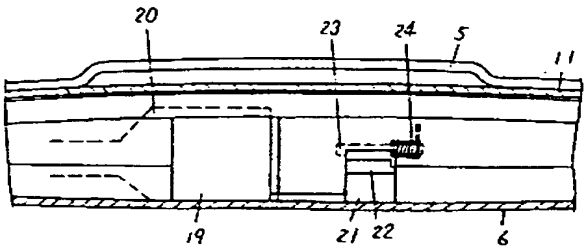
TITLE : TURBINE NOZZLE OF VACUUM CLEANER





ABSTRACT : PURPOSE: To prevent the super high speed rotation of a turbine wheel, to reduce a noise and to prevent the deterioration of the durability of a bearing part by providing a main and sub-passages for communicating a turbine room with a rotating brush room, a screen plate for opening and closing the main passage and a wind velocity adjusting body confronting the sub-passage and changing the opening area of the sub-passage according to the flow rate of a suction air current passing through this sub-passage.

CONSTITUTION: When a turbine nozzle 1 is connected to a vacuum the vacuum cleaner of a good suction performance to start to use, a suction air current passing a sub-passage 21 and entering a turbine room 8 and rotating a turbine wheel 4 tries to enter at high speed and collides with a closing plate 22. Consequently, a moment for defining a closing plate shaft 23 to be a rotating shaft and rotating a lower end side to the turbine 4 side is generated to rotate the closing plate 22 until it is balanced with the spring energizing force of a coil spring 24 and widen the sub-passage 21 in a height direction. The rotation of the closing plate 22 is generated with more than a set air quantity: when the air quantity is increased, a rotating angle is increased to enlarge a passage height, so that the flow rate of the suction air current colliding with the turbine wheel is maintained to substantially to a constant value in case of above the set air quantity. Consequently, the super high speed rotation of the turbine wheel can be prevented.